technology transfer *fact sheet*

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Hamamelis virginiana

Family: Hamamelidaceae

Witch Hazel

The genus Hamamelis is composed of 6 species native to: North America [3] and temperate east Asia [3].

Hamamelis virginiana-Common Witch Hazel, Snapping Hazel, Southern Witch Hazel, Spotted Alder, Winter Bloom

Distribution

North America, from Nova Scotia, New Brunswick, Maine and Quebec, west to Ontario, Michigan and Minnesota, south to Iowa, Arkansas, Oklahoma and Texas, and east to Florida.

The Tree

Witch Hazel is a fall to winter flowering tree or shrub. It has a thin scaly light brown, bark and small branches which grow in a zigzag manner. The flowers are bisexual with prominent, yellow ribbon like petals. The fruits are small, paired and horned. The tree attains heights of 30 feet and diameters of 1 foot. Witch Hazel grows at forest edges and along streams as an understory species. It grows best in deep, rich soils.

The Wood

General

The sapwood of Witch Hazel is light brown, with a pinkish hue, while the heartwood is dark brown. The luster is medium and has no odor or taste. It has a medium density, fine texture and straight grain.

Mechanical Properties (2-inch standard)

	Specific gravity	MOE x10^6 lbf/in^2	MOR lbf/in^2	Compression Parallel lbf/in^2	Compression Perpendicular lbf/in^2	WML[a] in-lbf/in^3	Hardness lbf	Shear lbf/in^2
Green	0.56	1.11	8,300	3,400	620	19.5	980	1,120
Dry	0.61	1.46	15,200	6,740	1,370	21.0	1,530	–

[a]WML = Work to maximum load.
[b]Reference (59).

Drying and Shrinkage

	Percentage of shrinkage (green to final moisture content)		
Type of shrinkage	0% MC	6% MC	20% MC
Tangential	–	–	–
Radial	–	–	–
Volumetric	18.8	–	–

Reference (59)

Working Properties: Rather easily worked.

Durability: Low

Preservation: No information available at this time.

Uses: Branches for divining rods, oil from leaves, twigs and bark used for liniments and medicines.

Toxicity: No information available at this time.

Additional Reading and References Cited (in parentheses)

1. Boone, R.S., C.J. Kozlik, P.J. Bois & E.M. Wengert. 1988. Dry kiln schedules for commercial woods - temperate and tropical. USDA Forest Service, FPL General Technical Report FPL-GTR-57.

2. Elias, T.S. 1980. The complete trees of North America, field guide and natural history. Van Nostrand Reinhold Co., New York, 948 pp.

3. Little, Jr., E.L.1979. Checklist of United States trees (native and naturalized). USDA Forest Service, Ag. Handbook No. 541, USGPO, Washington, DC.

4. Markwardt, L.J. and T.R.C. Wilson. 1935. Strength and related properties of woods grown in the United States. USDA Forest Service, Tech. Bull. No. 479. USGPO, Washington, DC.

5. Panshin, A.J. and C. de Zeeuw. 1980. Textbook of Wood Technology, 4th Ed., McGraw-Hill Book Co., New York, 722 pp.

6. Record, S.J. and R.W. Hess. 1943. Timbers of the new world. Yale University Press, New Haven, 640 pp.

7. Simpson, W.T. 1991. Dry kiln operator's manual. USDA Forest Service, FPL Ag. Handbook 188.

8. Summitt, R. and A. Sliker. 1980. CRC handbook of materials science. Volume 4, wood. CRC Press, Inc., Boca Raton, FL. 459 pp.

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